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The Paris terror attacks, mental health and the spectre of fear

Robert E Bartholomew
Department of History and Social Sciences, Botany College, Manukau, Auckland 2016, New Zealand
Corresponding author: Robert E Bartholomew. Email: r.bartholomew@bdsc.school.nz

The year 2015 saw an upsurge in terrorist attacks on Western countries that were reportedly inspired by Islamic State in Iraq and Syria (ISIS). The two most significant incidents occurred in Europe and North America. In Paris on the night of 13 November, a series of coordinated shootings and bombings left 130 dead and 367 wounded. On the morning of 2 December, 14 more were killed and 21 injured in a shooting in San Bernardino, California. A number of less serious incidents have also occurred including the stabbing of three passengers on the London Underground rail network on 5 December. Yet the physical casualties are only part of the story. The less obvious social and psychological after-effects on individuals, groups and society pose a formidable long-term threat that will continue to impact the affected individuals and communities for years to come.

For every physical casualty of a terror attack, it is estimated that there are between four and fifty times the number of victims of acute stress and psychological trauma.[1] Historically, attacks have also led to a social backlash involving the widespread marginalisation of minority religious and ethnic groups that were implicated through guilt by association, further stoking diffuse fears, and increasing tension among members of the targeted group. One study found that after the 11 September 2001 US terror attacks, Arab Americans were 'doubly traumatized', first by the attacks, and later by harassment and profiling, leading to rates of depression and anxiety that were higher than the general public and other minorities.[2]

The most common serious psychiatric condition to arise in the wake of a terror attack is post-traumatic stress disorder (PTSD), with consistent findings of a 30–40% prevalence rate among those directly affected. One study of people in close proximity to the 9/11 attacks in New York City (either in the World Trade Center or within a one block radius) found that 35% developed PTSD within 4 years.[3] A study of survivors of the bombing of the Alfred P. Murrah Federal Building in Oklahoma City on 19 April 1995, found a PTSD prevalence rate of 34%.[4] The incidence of PTSD in the general population of a targeted city or nearby environs, typically spikes within the first two weeks, before declining precipitously, with the majority of those affected experiencing transient symptoms that resolve without mental health intervention. Within two months of an attack, most studies place the rate below 3%,[5] although one found that six months after the 9/11 attacks, 5.3% of New York City residents still met the criteria for PTSD.[6]

Increased anxiety in the wake of terrorist threats and attacks may give rise to large-scale outbreaks of mass psychogenic illness. The 20 March 1995 sarin gas attack on the Tokyo subway system left 12 dead and 62 seriously injured. Of 5081 people to receive medical attention, nearly 80% were discharged the same day after exhibiting the symptoms of acute anxiety: difficulty breathing, headache, nausea, and rapid pulse, prompting many researchers to suggest that instead of low-level exposure to sarin, their reactions were exclusively psychogenic.[7] Localised, small-scale incidents of mass psychogenic illness are also common after terror attacks and threats and are typically triggered by an unfamiliar odour that is perceived to be a chemical attack.[8]

While there are fears that a radiological dispersion device or 'dirty bomb' could cause mass casualties and significant economic loss, the greater threat lies from the psychological fallout. A radiation contamination incident at Goiania, Brazil in 1987, illustrates this point. Cesium-137 was introduced into the environment after a stolen radiotherapy machine was dismantled and sold as scrap metal, resulting in four deaths and 249 contamination patients. Of the 125,800 who were screened for exposure using radiation detectors, 8.3% exhibited psychosomatic symptoms consistent with radiation sickness including vomiting, face and neck rashes, and diarrhoea.[9] Based on these findings, it can be expected that for each contamination victim, 500 will seek medical screening, while another 40 will exhibit fear-induced psychogenic symptoms consistent with radiation exposure.[7]

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Several instances of mass panic involving chaotic flight from a perceived threat have been reported in Paris since the November attacks.[10] These false alarm flight panics are especially dangerous when they occur among large gatherings in a confined space with limited exits. On the night of 17 February 2003, a security guard at the E2 nightclub in Chicago used pepper spray to subdue unruly patrons. With the 9/11 attacks fresh in their minds, several customers mistook the incident for a chemical weapons attack. The resultant crowd crush left 21 dead, mostly from compressional asphyxiation.[11]

On a societal level, terror attacks often give rise to scapegoating. The Paris attacks incubated a climate of Islamophobia, further stoking diffuse anxieties and reinforcing stereotypes of Muslims as terrorists. Similarly, a sharp rise in hate crimes against British Muslims was recorded in the aftermath of the London bombings of 7 July 2005.[12] These reactions are reminiscent of the communist 'Red Peril' in the United States and Europe between 1946 and 1955, and the 2005–2006 UK Hoodie Scare when British media and politicians began to warn of the threat posed by youths wearing hooded sweatshirts.[11] These episodes constitute moral panics: exaggerated societal responses to a real or perceived threat that is promoted by elements of the media and agents of social control. In the case of ISIS and Islam, the public fear is disproportionate to the threat. Of the approximately 1.68 billion Muslims who constitute 23.2% of the global population, the US Central Intelligence Agency estimates that there are about 31,000 jihadist extremist militants in ISIS.[13] The risk of any one person becoming a physical casualty of a terror attack is extremely low.

Health care practitioners are in a unique position to help heal the wounds from terror attacks. In doing so, they need to be aware that the majority of casualties will not be immediately visible but take the form of social and psychological dysphoria that typifies these events and lingers long after the physical scars have healed.

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